## REMARKS

In response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed January 23, 2009, and pursuant to a Request for Continued Examination (RCE) filed concurrently herewith, Applicants respectfully request reconsideration. All of the issues raised in the Advisory Action mailed November 19, 2008 and the Final Office Action mailed August 20, 2008 have been carefully considered and are addressed herein.

Claims 1-7 are pending in this application, of which claims 1 and 5 are independent claims. In this paper, claims 1 and 5 have been amended. The application as now presented is believed to be in allowable condition.

I. Rejections Under 35 U.S.C. §103

The Advisory Action maintained the rejections of claims 1-7 under 35 U.S.C. §103(a) as purportedly being obvious over U.S. Patent No. 6,961,875 ("Floyd") in view of U.S. Patent No. 6,070,210 ("Cheon"). Applicants respectfully traverse each of these rejections.

A. The Combination of Floyd and Cheon Fails to Disclose All Limitations of Claims 1 and 5

Claim 1 as amended recites a method comprising transmitting first digital messages to an analysis tool from a monitoring circuit integrated with a microprocessor. The first digital messages are representative of first specific events which depend on execution of an instruction sequence by the microprocessor. The method further comprises detecting, with a request circuit, at least one second specific event independent from the execution of the instruction sequence by the microprocessor, and transmitting from the request circuit to the monitoring circuit though dedicated accesses, when the at least one second specific event is detected, **a request signal indicating a request that message associated with said at least one second specific event be transmitted to said analysis tool and a characteristic data signal associated with said at least one second specific event**. The method further comprises storing the characteristic data signal in the monitoring circuit, and, if resource management conditions are fulfilled, transmitting an acknowledgement signal from the monitoring circuit to the request circuit through a dedicated access, wherein the acknowledgement signal notifies the request circuit that

the request has been granted. The method further comprises transmitting at least one second digital message representative of the stored characteristic data signal from the monitoring circuit to the analysis tool, and processing the first digital messages and the at least one second digital message via the analysis tool to analyze operation of the microprocessor, including determining the instruction sequence executed by the microprocessor, and the at least one second specific event **to determine at least one relationship between the instruction sequence and the at least one second specific event.**

Claim 5 is an independent apparatus claim that closely tracks the language of independent method claim 1. Claim 5 recites an apparatus comprising a microprocessor, a memory integrated with the microprocessor, an analysis tool, and a monitoring circuit for transmitting first digital messages to the analysis tool. The first digital messages are representative of first specific events which depend on execution of an instruction sequence by the microprocessor. The apparatus further comprises a request circuit for detecting at least one second specific event independent from the execution of the instruction sequence by the microprocessor. The request circuit transmits to the monitoring circuit though dedicated accesses, when the at least one second specific event is detected, a request signal indicating a request that message associated with said at least one second specific event be transmitted to said analysis tool and a characteristic data signal associated with said at least one second specific event. The monitoring circuit stores the characteristic data signal, if resource management conditions are fulfilled, transmits to the request circuit an acknowledgement signal when the characteristic data signal is stored, wherein the acknowledgement signal notifies the request circuit that the request has been granted, and transmits to the analysis tool at least one second digital message representative of said stored characteristic data signal, wherein the at least one second digital message comprises an identifier indicating that the at least one second digital message is relative to the at least one second specific event independent from the execution of the instruction sequence by the microprocessor, and the characteristic data signal. The analysis tool processes the first digital messages and the at least one second digital message to analyze operation of the microprocessor, including determining the instruction sequence executed by the microprocessor, and the at least one second specific event to determine at least one relationship between the instruction sequence and the at least one second specific event.

As amended, claim 1 recites that both a request signal and a characteristic data signal are transmitted from a request circuit to a monitoring circuit via dedicated accesses when at least one second specific event is detected by the request circuit. The Final Office Action asserted that the counter 202 of Floyd was a monitoring circuit and the event sequence signal 217 of Floyd was a characteristic data signal that was transmitted from a request circuit (event sequence logic 232) to the monitoring circuit (counter 202) (Final Office Action pages 2-3).

However, even if the event sequence signal of Floyd is considered a characteristic data signal associated with at least one second specific event that is independent from the execution of an instruction sequence by a microprocessor, which Applicants do not concede, Floyd fails to disclose or suggest also transmitting a request signal from a request circuit to a monitoring circuit. Furthermore, the system of Floyd discloses only a single connection between the event sequence logic 232, and the counter 202 (see Floyd, Fig. 2), thereby making it impossible that both a request signal and a characteristic data signal are sent from the event sequence logic 232 to the counter 202 through **dedicated accesses** as recited in claims 1 and 5.

Amended claim 1 also recites, "processing the first digital messages and the at least one second digital message via the analysis tool to analyze operation of the microprocessor, including determining the instruction sequence executed by the microprocessor, and the at least one second specific event to determine at least one relationship between the instruction sequence and the at least one second specific event." Support for this amendment can be found at least at page 3, lines 5-7 of Applicants' specification which states that the analysis tool may use information related to events independent from the execution of the microprocessor to assist in the diagnosis of malfunctions of the microprocessor.

The Office Action appears to consider the trace array of Floyd to be an analysis tool, and the start signal 218 to be at least one second specific event, as recited in claim 1 (Office Action, pages 2-3). However, even if the trace array of Floyd is considered an analysis tool and the start signal is considered at least one specific event, which Applicants do not concede, the trace array of Floyd does not determine an instruction sequence executed by the microprocessor and the at least one second specific event **to determine at least one relationship between the instruction sequence and the at least one second specific event** as recited in claim 1. Rather, the start signal of Floyd is merely received by event logic to determine when to send a signal from the

event logic to the counter to begin generating addresses for the trace array (Floyd, col. 6, lines 12-14). Notably, the trace array of Floyd does not use at least one second digital message representative of the start signal to determine at least one relationship between an instruction sequence of the microprocessor and the start signal.

Cheon fails to cure these deficiencies of Floyd. In Cheon, a microprocessor sends a "low" state or "high" state mode selection control signal to buffers 210 and 220 in circuitry associated with the DMA device to enable or disable acknowledgement signals DACK and BACK transferred between the SCSI controller and the DMA device. The state of the mode selection control signal, and thus which acknowledgement signal is active, determines the timing mode (i.e., single vs. burst mode) used to transfer data from the SCSI controller to the memory (Cheon, Fig. 2 and accompanying text at col. 3, line 65 – col. 4 line 26).

A Final Office Action mailed April 6, 2007 asserted that the DREQ signal received by the DMA device was a request signal sent by the SCSI controller, which Applicants do not dispute. However, the request signal DREQ does not indicate "a request that a message associated with said at least one second specific event be transmitted to said analysis tool," as recited in claim 1. Rather, the DREQ signal in Cheon merely indicates to the DMA device that the SCSI controller is ready to write data to the memory (Cheon, Col. 3, lines 17-20). Furthermore, the SCSI controller in Cheon does not send both a request signal and a characteristic data signal to the DMA device, as recited in claims 1 and 5. Rather, upon receiving an acknowledgement signal from the DMA device, data is written directly from the SCSI controller to the memory, and not to the DMA device (Cheon, Col. 3, lines 13-17).

Claim 5 has been amended to recite *inter alia*, "[t]he monitoring circuit stores the characteristic data signal, if resource management conditions are fulfilled, transmits to the request circuit an acknowledgement signal when the characteristic data signal is stored, wherein the acknowledgement signal notifies the request circuit that the request has been granted, and transmits to the analysis tool at least one second digital message representative of said stored characteristic data signal, **wherein the at least one second digital message comprises an identifier indicating that the at least one second digital message is relative to the at least one second specific event independent from the execution of the instruction sequence by the**

**microprocessor, and the characteristic data signal.**" (emphasis added). This amendment is supported at least as page 6, lines 5-10 of Applicants' specification.

Neither Cheon nor Floyd teaches this additional limitation of claim 5, as neither Cheon nor Floyd discloses or suggests a digital message comprising an identifier indicating that the message is relative to at least one second specific event independent from the execution of an instruction sequence by a microprocessor.

As neither Floyd nor Cheon discloses or suggests all of the limitations of claims 1 and 5, the Office Action fails to satisfy the requirements for establishing a *prima facie* case of obviousness regarding claims 1 and 5. Accordingly, Applicants respectfully submit that the rejection of each of claims 1 and 5 is improper, and should be withdrawn.

Claims 2-4 depend from claim 1 and claims 6 and 7 depend from claim 5. Each of these dependent claims patentably distinguishes over Floyd and Cheon for at least the same reasons as its respective base claim. Accordingly, it is respectfully requested that the rejection of each of these dependent claims be withdrawn.

## CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. S1022.81243US00.

Dated: April 24, 2009

Respectfully submitted,

By: _____

Joseph Teja, Jr., Reg. No. 45,157
Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
Telephone: (617) 646-8000